CLAIMS

1. A control system connected to and for controlling a cooking appliance having a plurality of heated zones, the control system comprising:

a. a microcontroller computer system under control of a program controlling cooking times and generating signals for indicating the need for manual operations by an operator;

b. a plurality of sensors including temperature sensors detecting a temperature of each zone, each sensor connected to input a signal to the computer system;

c. a plurality of displays each connected to receive output signals from the computer system, each display being mounted in physical association with a zone for signaling a zone condition and signaling manual operations needed for its associated zone; and

d. a plurality of manual input switches each connected to input a signal to the computer system, each manual input switch being mounted in physical association to a zone for manual confirmation of performance of a manual operation signaled by a display for its associated zone.

2. A control system in accordance with claim 1, wherein the microcontroller also controls cooking temperatures.

3. A control system in accordance with claim 2, wherein at least some of said displays and input switches are arranged in physically associated pairs, each pair having a display and a switch, the pairs being physically located at diverse locations on the grill in proximity to the location of the performance of the manual operations they signal.

4. A control system in accordance with claim 3 and further comprising an audible alarm connected to receive output signals from the computer system for signaling to an operator the need to perform a manual operation.

5. A control system connected to and for controlling a grill, the grill including a cooking area and a staging area, the cooking area having at least one lower cooking zone and at least one upper cooking platen movable into and away from a position spaced above the lower cooking zone, the staging area having at least one staging zone, the control system comprising:

a. a microcontroller computer system under control of a program controlling cooking and staging times, zone and platen temperatures and generating signals for indicating the need for manual operations by an operator;

b. a plurality of sensors including temperature sensors detecting the temperature of each zone and platen, each sensor connected to input a signal to the computer system;

c. a plurality of user interface displays each connected to receive output signals from the computer system, each display being mounted in physical association to a different one of said zones for signaling a zone condition and manual operations needed for its associated zone; and

d. a plurality of manual input confirmation switches each connected to input a signal to the computer system, each manual input switch being mounted in physical association to a different one of said zones for manual confirmation of performance of a manual operation signaled by a display for its associated zone.

6. A control system in accordance with claim 5, wherein at least some of said displays and input switches are arranged in physically associated pairs, each pair having a display and a switch, the pairs being physically located at diverse locations on the grill in proximity to the location of the performance of the manual operations they signal and confirm.

7. A control system in accordance with claim 6 wherein the zones comprise parallel lanes oriented substantially parallel to a front edge of the grill, each zone having at least one of said physically associated pairs.

8. A control system in accordance with claim 7, wherein the cooking area comprises a plurality of cooking zones, each cooking zone comprises two of said lanes and has an upper platen movable to a position above its two lanes, each cooking zone having one of said physically associated pairs.

9. A control system in accordance with claim 8, wherein the staging area comprises a plurality of staging zones, each staging zone comprising a lane and having one of said physically associated pairs.

10. A control system in accordance with claim 7, wherein at least some of said pairs are located on physically opposite sides of said grill.

11. A control system in accordance with claim 5 and further comprising a position sensor linked to the upper platen for detecting whether the platen is in a raised or lowered position, the position sensor having an output connected to an input to the computer system for inputting platen position data to the computer system for signaling initiation of a cooking operation.

12. A control system in accordance with claim 5 or 6 or 7 or 8 or 9 or 10 or 11 and further comprising:

a. an input for entering a size of a food product to be cooked on the grill into the computer system; and

b. a lift mechanism mechanically linked to at least one upper platen for adjusting the height of the platen above the cooking area.

13. A control system in accordance with claim 12 wherein the lift mechanism is an electrically controlled mechanical actuator having an input connected to an output of the computer system for control of the upper platen height above the lower cooking zone

14. A control system in accordance with claim 12 and further comprising a temperature sensor associated with each zone for detecting the temperature of its associated zone, each temperature sensor connected to the computer system for controlling the temperature of each zone and preventing initiation of a cooking timing cycle for a zone when the zone temperature is outside a temperature range stored in the computer system.

15. A control system in accordance with claim 5 or 6 or 7 or 8 or 9 or 10 or 11 and further comprising a temperature sensor associated with each zone for detecting the temperature of its associated zone, each temperature sensor connected to the computer system for controlling the temperature of each zone and for preventing initiation of a cooking timing cycle for a zone when the zone temperature is outside a temperature range stored in the computer system.

16. A method for controlling manual operations associated with a cooking appliance having a plurality of heated zones for heating a food workpiece, the method comprising:

c. storing a time interval, associated with each zone, for performing a workpiece heating operation at the associated zone after which a manual workpiece operation needs to be performed;

d. detecting the commencement of a heating operation at a zone on the food workpiece and initiating a timing cycle for a zone when and at which the heating operation commences;

e. visually signaling the elapse of the stored time interval associated with each zone at a display which is physically associated with the zone; and

f. manually inputting a confirmation signal from a manually operable switch physically associated with a zone when the manual workpiece operation for that zone has been performed.

17. A method in accordance with claim 16 wherein the commencement of the heating operation in a cooking zone is detected by detecting the lowering of an upper platen down upon workpieces positioned in a cooking zone.

18. A method in accordance with claim 16 wherein the commencement of a heating operation is detected by manually inputting a signal from a manually operable switch physically associated with a zone at which a heating operation has commenced.

19. A method in accordance with claim 16 wherein the heated zones include cooking zones in which the heating operation includes cooking food workpieces and staging zones in which the heating operation includes holding food workpieces within a stored temperature range, wherein the commencement of a cooking operation in a cooking zone is detected by detecting the lowering of an upper platen down upon workpieces positioned in a cooking zone, wherein the commencement of a holding operation in a staging zone is detected by manually inputting a signal from a manually operable switch physically associated with a staging zone at which a holding operation has commenced, and wherein the method further comprises storing an acceptable cooking temperature range, detecting the temperature of a cooking zone and disabling the initiation of a timing cycle for a cooking zone whenever the temperature of the cooking zone is not within the stored cooking temperature range.

20. A method in accordance with claim 19 , wherein the method further comprises:

a. storing in the computer system a removal time interval after which a food workpiece in a staging zone should be removed from the staging zone;

b. visually signaling a staging zone, in which cooked food workpieces should be placed, at a display which is physically associated with the zone;

c. manually inputting in the computer system a confirmation signal from a manually operable switch physically associated with the staging zone that food workpieces

have been placed in the staging zone and initiating in the computer system a holding timing cycle in response to the confirmation signal;

d. upon elapse of the stored removal time interval for a staging zone, visually signaling, at a display which is physically associated with the staging zone, that food workpieces in the staging zone should be removed from the cooking appliance; and

e. manually inputting in the computer system a confirmation signal from a manually operable switch physically associated with a staging zone that food workpieces have been removed from the staging zone.

21. A method in accordance with claim 20 and further comprising storing in the computer system a turning time interval after which a food workpiece in the staging zone should be turned, initiating in the computer system a turning timing cycle in response to the confirmation signal that food workpieces have been placed in the staging zone, and upon elapse of the stored turning time interval for a zone, visually signaling, at a display which is physically associated with the zone, that food workpieces in the staging zone should be turned.

17. A method in accordance with claim 16 or 17 or 18 or 19 or 20 or 21 and further comprising actuating an audible alarm in association with visual signaling.